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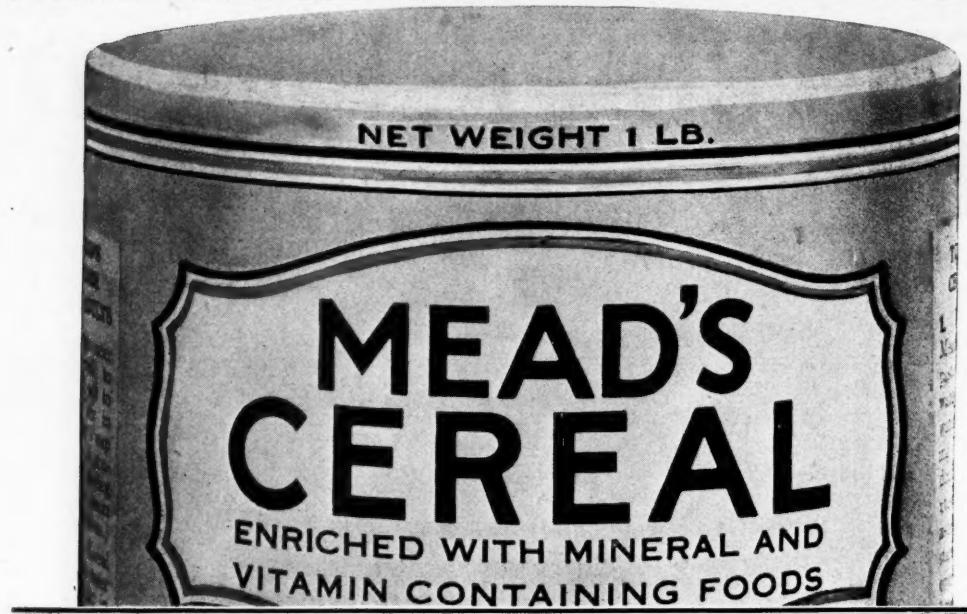
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ORIGINAL ARTICLES

GALL BLADDER DISEASE*.

By H. E. WELLMAN, M.D.

184 WATERMAN ST., PROVIDENCE, R. I.

Gall bladder inflammation and gall stone disease have been recognized for centuries, but the clinical picture and diagnosis of these conditions were not recognized until the last century. The clinical picture of chronic gall bladder disease and chronic appendix disease is really that of a late disease. The conditions exist for a long time before the symptom-complex develops to a degree that makes a diagnosis possible.

From an anatomical aspect, according to Dr. Culpepper, the gall bladder has many features in common with the appendix. Both fill and empty by the same orifice. With the exception of the seminal vesicles, no other organs in the body show this peculiarity. Similar types of infection may affect the gall bladder and the appendix. They are both liable to interstitial inflammations, which, in the early stages, may not affect the mucous membrane nor the peritoneum. There is this difference, however: the gall bladder has an ample blood supply, whereas the appendix has, in many instances, a very deficient one, especially towards its terminal half. As a result of this, an acute condition of the appendix may be a matter of extreme urgency; while an acute infection of the gall bladder seldom exhibits that urgency which makes an immediate operation necessary.

A careful history and a thorough physical examination are the most reliable and practical of the various diagnostic measures applied to the biliary tract. The factors of gall bladder concentration, inflammation and obstruction, in relation to the part of the gall bladder or bile passages in which one or more of these factors is active, determine the clinical picture. For example, if during preg-

nancy the cholesterol, which is in excess in the bile, becomes concentrated in the gall bladder beyond the saturation point, a pure cholesterol stone is formed and may remain as a silent stone for many months or years. However, if it becomes impacted in the cystic duct, the factor of obstruction is added and a hydrops of the gall bladder will result if the obstruction persists. If, in addition, the factor of infection and inflammation is added to the other two factors in the same part of the tract, an empyema will result, giving a different picture and demanding more urgent therapy.

The presence of gall stones is the result of previous infections and must not be regarded as a surgical entity, but as a definite complication of an underlying disease.

In the majority of well established gall stone or gall bladder diseases, the cholecystogram is not necessary to the diagnosis, but in obscure cases and in differential diagnoses of upper abdominal lesions cholecystography is invaluable.

The greater majority of acute gall bladder and bile tract inflammations are superimposed upon chronic lesions. The acute phase usually appears long after the patient has complained of colic and interval digestive disturbances, as bloating, belching and a sense of oppression in the upper abdomen.

Acute cholecystitis comprises about 9% of the inflammatory diseases of the gall bladder. Acute inflammation reveals itself in a variety of forms. It is a lesion showing edema, polymorphonuclear infiltration of various layers of the wall of the viscus, with or without stones or preceding inflammation. The lumen may contain pus and there may be a pericholecystitis. The onset is usually sudden, often with a chill and accompanied by nausea, vomiting and pain. The temperature is about 101. A physical examination reveals a tender mass in the right upper quadrant and, when there is peritoneal involvement, involuntary upper right rectus rigidity. If it has been the seat of a long standing chronic inflammation, it is more liable to pericholecystitis and omental adhesions with a less easily palpable mass. Slow perforation with a subhepatic abscess is more likely to occur. In the noncalculous

*Read before the Providence Medical Association, October 5, 1931.

acute gall bladder, or one that has not been the seat of a previous chronic inflammation, perforation, when it occurs, results in a rapidly spreading peritonitis.

The general symptoms of gall bladder disease may be divided into the following categories:

- (1) Digestive.
- (2) Tenderness.
- (3) Remote or Focal.

Digestive Symptoms—The history of indigestion is difficult to obtain. To a patient, it may mean anything from a pain in the lower abdomen, due to obvious constipation, to acute epigastric pain. The type of digestive symptoms is a general upper abdominal discomfort. The patient often says that she has a feeling of distention, which may travel up to the fourth or fifth rib, usually on the right side. The predominating feature of the indigestion may be flatulence, accentuated after meals. Gaseous eructations (usually immediately after eating) give some relief. These symptoms vary from time to time, and seem to come in attacks. Dwyer and his co-workers found that in 1,650 consecutive patients, complaining of dyspepsia, organic disease was present in nearly one-half. The relative frequency was as follows:

Gastric Ulcer	1
Gastric Carcinoma	2
Reflex Appendicitis	4
Duodenal Ulcer	6
Gall Bladder Disease	12

Of all the patients with dyspepsia found by Dwyer to be suffering from organic disease, 88% had extra gastric lesions.

Tenderness—Very frequently, tenderness at the tip of the costal cartilage and Murphy's sign may be present. The hand is placed deeply under the infracostal margin, and the patient is asked to take a deep breath. As soon as the liver comes down on the examining palm, an immediate catch in breathing is noticed. This is controlled by a similar examination on the left side.

Although a tender mass, with a rounded lower border, can often be felt in the right hypochondrium, when the gall bladder is actually distended and inflamed in chronic cholecystitis, an enlarged gall bladder is very infrequently felt. One must remember that an enlarged gall bladder may be so covered by the anterior surface of the right lobe of the liver that it cannot be palpated. Tenderness, however, can usually be elicited.

Focal Symptoms—Often the gall bladder, acting as a reservoir for sepsis, causes symptoms in remote parts of the body. Painful joints are probably the most frequent of these focal symptoms. When a patient complains of "rheumatism," an immediate search for sepsis is made. Tonsils and nasal sinuses are usually suspected. Many patients have undergone tonsillectomy and alveolectomy without relief, but the rheumatism has very quickly disappeared after the removal of an inflamed gall bladder. A frequent and dangerous complication occurs in the heart. Patients who have suffered from recurring attacks of cholecystitis for a long time are apt to develop a form of myocarditis which renders an operation a serious procedure. The heart will often improve after the removal of the infected gall bladder.

The symptoms in a certain case may not be unbearable, but in a confirmed chronic cholecystitis, the effect the pathological gall bladder may have on neighboring organs should be carefully considered. The vicious circle produced by the inflamed gall bladder causing a hepatitis, and being re-infected from the hepatitis, has been shown by Evarts Graham. The frequent occurrence of pancreatitis, due to infection of the lymphatic glands contiguous to the head of the pancreas, should be considered.

The co-existence of cholecystitis and gastric and duodenal ulcers is too frequent to be ascribed to coincidence. Whether the ulcer arises from the infection being carried from the gall bladder through the blood or by way of the lymphatic glands, there is certainly a relation of cause and effect between the two.

The diagnosis of cholelithiasis or cholecystitis is fairly simple when the symptoms follow the classical lines. When they are obscure it is more difficult to tell which organs are to blame. Dr. Whipple has classified the symptoms which helps in a differential diagnosis of upper abdominal conditions. Pain in gall bladder and biliary tract diseases occurs at irregular intervals and is unrelated to food intake—as is the case in gastric, and especially duodenal ulcers. It is not relieved by food. The pain usually radiates to the back and right scapula and ceases abruptly. Nausea and vomiting are generally limited to the onset of the pain and do not bring relief as regularly as in ulcers. The vomitus is greenish and not characterized by fresh or old blood—which is the case in ulcers. The interval digestive disturb-

ances of the biliary tract disease are described as a sense of bloating and of fullness or a lump in the epigastrum or left upper quadrant. In ulcer or carcinoma of the stomach, the epigastric distress is of a burning, gnawing type. In the former, belching of volumes of gas is typical. In the latter, eructations are usually associated with the bringing up of sour, acid or burning stomach contents. Pain in pancreatic disease, rarely unassociated with biliary tract lesions, is epigastric and usually radiates directly through to the lower dorsal or upper lumbar region.

A right sided renal infection, particularly pyonephrosis, may be confused with an empyema of the gall bladder. Ordinarily there is a history of pain radiating from the back down to the groin or genitals, and also a history of cloudy urine. A large, tender mass in the right upper quadrant suggests a large, tender gall bladder, but a pyonephrosis can usually be felt by bi-manual palpitation. There is a marked tenderness in the right costo-vertebral angle over the eleventh and twelfth ribs. Urine analysis shows gross or microscopic evidence of pus or blood. Cystoscopy will reveal a non-functioning right ureter, if the urine is negative.

A right subhepatic abscess may be difficult to differentiate from an acute cholecystitis or empyema of the gall bladder. Such an abscess may be secondary to a duodenal, appendiceal, perinephritic or gall bladder lesion. The history is most helpful in determining the initial focus. Too much time should not be spent searching for this focus, if all signs point to an acute abscess in the right upper quadrant. Indications for drainage should be met promptly.

Lesions which, at times, are apt to be confused with biliary tract diseases, and in which surgery is contra-indicated, are pneumonia, acute pleurisy, certain cardiac lesions, catarrhal or infectious jaundice, certain lesions of the liver, as acute, yellow atrophy, cirrhosis, and syphilitic hepatitis; rarely herpes zoster and Pott's disease. Obviously, the history and physical examination are most important in differentiating these lesions. The severe right sided pain of a diaphragmatic pleurisy may simulate an acute cholecystitis. The history of an associated upper respiratory tract infection and the finding of coryza, tonsillitis and bronchitis, with the presence of rapid, restricted respirations, a "to and fro" pleural friction rub, with or without signs of consolidation, confirms the diagnosis.

In certain heart lesions associated with acute cardiac decompensation, pain and tenderness in the right upper quadrant may simulate an acute liver or gall bladder infection. The history of rheumatism, longstanding heart disease, the presence of orthopnea, dyspnea, cyanosis, rapid pulse, cardiac enlargement, and a tender, large liver, give the diagnosis. In addition to the tender liver associated with a decompensated heart, some patients, with coronary thrombosis, complain of great epigastric and upper abdominal pain together with tenderness in these regions. They may show a leukocytosis. A history of heart disease is generally given, with a special mention of precordial, as well as epigastric pain. Of course, a friction rub over the pericardium makes the diagnosis certain.

Catarrhal and infectious jaundice usually occur in young adults without a previous history of similar attacks. There is little pain. In certain forms of infectious jaundice merging into mild, acute yellow atrophy, a tender liver which decreases in size with deepening jaundice, points to a non-surgical lesion. While jaundice is one of the symptoms, the absence of it should make little difference in the diagnosis of gall bladder diseases. It is not common, but when it does occur, aside from a mere transitory icterus, it denotes either an infection or an obstruction (or both) of the ducts. Dr. White of Boston has given the following characteristics of obstructive jaundice:

There is absence of bile in the stools.

The VanDenBergh test is direct.

The fragility test of the red blood cells is normal.

An enlarged gall bladder indicates carcinoma, while a small one indicates stones.

The treatment is ultimately surgical although the surgeon and the internist should co-operate in preparing the patient for operation. Dr. Orr includes under medical treatment proper diet, removal of focal infections, the use of hydrochloric acid for the anacidity which usually accompanies gall bladder disease, non-surgical drainage with a duodenal tube, cholegogues, biliary antiseptics, gastric lavage, cathartics, and narcotics for acute attacks. The most important are the diet, cathartics and narcotics.

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TREATMENT OF ACUTE POLIOMYELITIS WITH CONVALESCENT SERUM*

D. L. RICHARDSON, M.D., EDWARD J. WEST, M.D.

During the outbreak of acute poliomyelitis which began in July and ended in October, 1931, 129 cases were treated at the Charles V. Chapin Hospital. Fifty-three of these cases were among residents of Providence and 76 came from 32 other cities and towns of Rhode Island and nearby Massachusetts. The largest number of out-of-town cases came from Woonsocket. This number of cases exceeded the number hospitalized in 1916. In fact, only 145 cases of this disease were hospitalized from 1910 to 1929 inclusive. The fatality rate among these 145 cases was 20.7%. In the 1931 outbreak 10 deaths occurred among 129 cases, a fatality rate of 7.8%.

From 1910 to 1931 the treatment of these cases in the acute stage of the disease had been largely symptomatic. Particular care had been taken to keep the patient absolutely quiet, the extremities warm, and the extremities, particularly the legs, were splinted to prevent contractures. Passive motions had been employed early to keep the joints flexible but no active motions or massage allowed until the soreness and tenderness had wholly disappeared. In a few cases special treatments of one kind or another had been employed but these have not appeared to be of any real value.

In view of the widespread interest and faith in the use of convalescent serum it was thought advisable to try this treatment, particularly in those cases which were recognized before the paralysis appeared. During past years, however, very few cases were admitted to the hospital before the advent of paralysis. For this reason we had never felt that convalescent serum would be of very much value if only the non-paralytic cases were to receive treatment. The reports of a considerable number

of non-paralytic cases in Massachusetts could not be easily understood. During the 1931 outbreak in this state, however, a large number of cases of a meningeal type of the disease without paralysis were sent into the hospital. In fact, fifty-four of the one hundred and twenty-nine cases admitted showed no paralysis. The explanation for this is not apparent. Very probably the writings of Luther and Kramer of the Harvard Poliomyelitis Commission have stimulated physicians to look more carefully for the earliest signs of the disease and has resulted in the recognition of a group of cases which formerly were missed. However, it does not seem probable that this accounts for the recognition of so large a percentage of non-paralytic cases. It is more probable that in the 1931 outbreak this new type of the disease appeared in this state for the first time, many cases of which have previously occurred in Massachusetts. Whether the latter observation is the chief explanation or whether better recognition of the disease accounts for it, is very difficult to say. Perhaps both factors have accounted for so many mild cases.

During the outbreak diagnosis was made on clinical symptoms and spinal fluid tests. A large number of children were admitted to the hospital for observation on suspicion that they might have acute poliomyelitis, in increasing numbers as the epidemic progressed. These were ruled out on clinical grounds and negative spinal fluids. Spinal fluid examinations were done on more than two hundred patients and these included all the suspicious cases and most of the definitely paralyzed cases. The cell counts varied from 6 to 400 cells or over. The smallest count was in a paralyzed case of 9 days' duration. In 5 cases it was 400 and in 3 cases over 400. There seemed to be no relation of the cell counts to fatality. In 7 extensively paralytic, fatal cases the count varied from 90 to 180.

Sugar examination was done in 88 cases, the results varying from 45 to 90 mgm. per 100 c.c. of spinal fluid.

The globulin test, done by Pandy's method in 85 cases, was positive in 74, and negative in 11 cases.

In non-paralytic cases the spinal fluid examination, particularly the cell count, and sugar determination was indispensable. One might ask whether

*Read before the Rhode Island Medical Society, March 3, 1932.

these tests might be positive in other acute infections and not to be relied upon. As a matter of fact, routine tests of the spinal fluid in other acute diseases seldom show an increased cell count. The few times when they might be positive would not lessen the value of this test as a positive confirmation of the diagnosis of acute poliomyelitis to any appreciable degree, particularly during an outbreak of paralytic poliomyelitis.

Of all the non-paralytic cases only two failed to show signs of meningeal irritation. Meningeal signs were not confined to the non-paralytic cases, for they were very constantly present in the paralytic cases as well. The usual early symptoms and signs were fever, headache, vomiting, stiffness in the neck and slight constipation. On examination the meningeal irritation was evident because of the stiffness in the neck and when absent, stiffness and pain of the back could be elicited by sitting the patient up and bending the body forward. This latter test is very important in doubtful cases.

The distribution and severity of the paralyses were much the same as in the 1916 outbreak. The extent varied from weakness in a group of muscles to almost total paralysis. The remarkable thing about the whole outbreak was the very high percentage of cases which were not paralyzed at all. It should, however, be pointed out that quite likely a few of the patients who were discharged without any evidence of paralysis did show some weakness in one or more groups of muscles after being active for a time at home. At least one such case has already come to our attention. This fact suggests the importance of prolonging convalescence for some weeks to allow sub-paralytic damage to anterior horn cells to completely regain their function.

The serum employed in the treatment of the cases was obtained from adolescents or adults who had previously had poliomyelitis. To secure enough serum it was necessary to accept donors who had the disease as long as twenty years previously. This is one explanation why as the epidemic progresses it was necessary to increase the amount of serum given each case, for such serum is less potent than that taken soon after the attack. We were particularly fortunate by judicious advertising and the co-operation of the physicians and public to secure all the serum we needed. When possible it was pooled. The Wasserman test was done on all

donors and the blood tested for sterility. It was preserved by the use of tri-cresol.

The route of administration and the dosage varied as the epidemic progresses. The first three cases to whom serum was administered were given 15 c.c. each intraspinally. This serum was only one year old. Two were treated within 24 hours after the onset and never showed any paralysis. The third was a bulbar case of three days' duration which showed no further progress in the paralysis of the throat and recovered. On July 31, on the advice of Dr. Kramer of the Harvard Poliomyelitis Commission we began to give larger doses. On admission patients were given 20 c.c. intraspinally and 60 c.c. intravenously or intramuscularly. The next day 20 c.c. were given intraspinally, making 100 c.c. altogether. The total dosage, however, varied with the severity of the case. Early in September the intraspinal route was gradually given up and all serum was given intravenously or intramuscularly. It came to be quite generally agreed that the intraspinal treatments were followed by too much irritation and that possibly definite damage was done by them in some cases.

The consensus of opinion is that once paralysis has appeared serum is of little or no value. All of the non-paralytic cases received treatment and because an abundance of serum was available a majority of the paralytic cases as well, selecting those in which paralysis was just beginning or probably not complete. One hundred and nine patients were given an average total dose of 67 c.c.

1 case received.....	160 c.c.
3 " "	140 c.c.
4 " "	120 c.c.
3 " "	110 c.c.
40 " "	100 c.c.
3 " "	90 c.c.
16 " "	80 c.c.
2 " "	70 c.c.
18 " "	60 c.c.
7 " "	40 c.c.
8 " "	20 c.c.
4 " "	15 c.c.

The ages of the 129 cases under treatment varied from 1 year to 26, 62% were under the age of 6 years, 17 cases were 12 years and over.

Fifty-four cases were admitted without paralyses and forty-nine were discharged without showing any signs of muscular weakness. Five cases devel-

Continued on page 105

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EDITORIALS

HEALTH INSURANCE

Attention is called to a review of the book entitled "The Way of Health Insurance," by A. M. Simons and Nathan Sinai, that appears in another column of this JOURNAL. Whatever virtue the book itself may possess, it is not now our purpose to extol or condemn, but beyond all doubt the authors are eminently qualified by observation and experience to set forth a concise exposition of the forces that will have, near or remote, a definite, potent bearing upon the activities of physi-

cians, not only in this state but in the entire country, and it is the problem rather than the book (and this means no disparagement) that we would earnestly recommend to your serious consideration. "Health insurance" is, it would appear, the "natural" child of lay "welfare workers," fathered evidently by "insurance interests," both being astute business enterprises and very much intent upon forcing the medical profession to furnish the bulk of the brawn to support the offspring.

Health insurance, by this or some other name, for good or ill, is forcefully rolling toward us; how far it will revolutionize the practice of medicine is as yet a matter of conjecture.

CONGRATULATIONS

This year, the Training School for Nurses of the Rhode Island Hospital celebrates the fiftieth anniversary of its founding.

Like the hospital itself, the Training School has been blessed by but few changes in its Superintendancy, so that the continuity of purpose, high standards of education, and quality of personnel have been but little affected by the cross currents of radical frequent change.

Beginning with but three nurses, there are now enrolled one hundred and ninety-seven pupils not including the probationers, and in its half century of useful constructive existence, the school has graduated over two thousand young women into a splendid profession, by their own works made honorable.

These nurses have, then, for years been a vital force in the health and well being of our own community as well as having extended their influence to almost every country of the world in the field of Medical and Nursing endeavor, and almost without exception reflecting credit upon their Alma Mater, —The Rhode Island Hospital.

It is a pleasure for the RHODE ISLAND MEDICAL JOURNAL, speaking the voice of a grateful Medical Profession to felicitate the Training School for Nurses on its long and splendid career, and to wish it in all sincerity an equally excellent future.

EUGENICS

Sir Francis Galton in 1884 first used the term "eugenics" to indicate "the study of agencies under social control that may improve or impair the racial qualities of future generations, either physically or mentally." Later he endowed a research fellowship to further the study of eugenics. This period of less than 50 years is too short a time to determine the practical value of the principles of eugenics, but it is not too long to bring out the tremendous difficulties that stand in the way of improving the racial qualities of future generations.

Sir Arthur Keith, a distinguished anatomist, has declared that the eugenists must have a stud farm where he can secure control, isolation and purity of blood. Further the subjects must sur-

render their liberty. Finally there must be at least 100 generations before a race of supermen could be produced. The leading men in the dairy industry have been experimenting with cows for many years and in spite of the fact that the cow has only 38 chromosomes in its cells and only requires three years to determine whether it will react properly, the results are far from satisfactory and seem to indicate that the purer strains of cattle are apt to be monstrosities and not normal animals.

The later development in the study of heredity that has demonstrated that each of the 48 chromosomes of man is divided into an unknown number of genes has added further difficulties to an already difficult problem. Another complication arises from the fact that the genes that contain the detrimental factors are masked and can only be determined by subsequent matings and even if it were possible to determine these genes, the question of the control or sterilization of the victims is not easy to solve.

In spite of the difficulties surrounding this subject from the standpoint of heredity, the study should continue. In the meantime much can be done in improving the environment and the training of individuals. For in the last analysis the mental and emotional factors that determine the usefulness of the individual in our complex civilization depend on the three factors, heredity, environment and training.

PRE-MALIGNANT TUMOR OBSTRUCTING THE PROGRESS OF LABOR

By HILBERT F. DAY, M.D., F.A.C.S.,
and

ALEXANDER A. LEVI, M.D.
412 BEACON ST., BOSTON, MASS.

We are reporting this case for two reasons: First, a pre-malignant tumor preventing engagement of the presenting part of the foetus; second, the inadequacy of the passage of meconium as a factor in making an immediate unfavorable prognosis for the baby.

Case: C. M. S.

Past History: Essentially negative excepting for measles and mumps in childhood; quinsy sore throat beginning at age of 15 years and occurring every year for seven successive years; a pleurisy on the right side at age of 10 years; and frequent

attacks of abdominal pain at age of 15 years, a diagnosis of catarrhal appendicitis being made.

Gynecological History: Catamenia began at age of 15 years, regular every 28 days, lasting 4-5 days. No history of dysmenorrhea or leucorrhea.

Obstetrical History: Last catamenia began October 12, 1929; expected date was July 19, 1930.

Physical Examination: (On admission.) Patient a white female, age 31 years, weighing 149 lbs. General examination essentially negative. The abdomen was symmetrically enlarged, fundus at the level of the umbilicus. Pelvic measurements 30 cms. inter-crestal; 22½ cms. inter-spinous; 20 cms. external conjugate. Vaginal examination—arch ample; promontory not felt. Pelvis ample.

Prenatal History: There were no abnormal symptoms throughout the pregnancy.

Labor History: On August 6, 1931, patient went into labor at 1:30 A. M. At 2:30 A. M. she was having contractions every 5 minutes, lasting from 30-60 seconds. She received sedative drugs and continued in labor.

7:00 A. M.—Rectal examination demonstrated the cervix to be 3 fingers dilated and thinning, and the presenting part not engaged.

12:40 noon—(Patient had by this time again received sedative drugs.) Labor pains occurred every 3-4 minutes, lasted from 30-45 seconds and were quite firm. Rectal examination disclosed the cervix better than two-thirds dilated and a mass situated eccentrically on the left which resembled a scrotum. Presenting part was not engaged.

2:30 P. M.—Meconium stained fluid was passed by vagina for the first time.

3:15 P. M.—Rectal examination disclosed the cervix fully dilated and no engagement of the presenting part. The mass still could be felt in the same position. Foetal heart was regular, rate 152. Vaginal discharge was more deeply stained with meconium and increased in amount.

5:45 P. M.—Rectal examination done at this time showed no change over the previous findings. Decision was reached, because of active labor of 2½ hours with full dilatation without descent, to perform a Caesarean section.

Operation: Classical Caesarean section performed in usual manner. A male baby somewhat limp was delivered. After about 5 minutes he cried normally. This was probably not due to ether as he was delivered within three minutes of the time

of the starting of the anesthesia. Placenta and membranes were delivered intact, uterus contracted well, incision was closed with four layers of sutures. Examining hand then found a tumor the size of an orange, irregular in shape and hard, situated in the relaxed left broad ligament. This unquestionably was the reason for the obstruction to the descent of the head, for it presented in front of the head and interfered with engagement. This tumor was removed with a certain amount of difficulty, requiring considerable suturing because of the ample blood supply. Sponge count was reported correct. Wound was closed in layers. Condition of mother and baby satisfactory at termination of operation.

Convalescence: Patient made an uneventful recovery. The average 4 P. M. temperature for the first 10 days post-operatively was 99.1. On the 11th day the patient developed a mastitis of short duration with sufficient intensity to influence the temperature. At birth the baby weighed 6 lbs. 3 oz. At the end of 2 days he weighed 5 lbs. 9 oz. and by the 8th day he had regained his birth weight. He presented no symptoms referable to the central nervous system:

Pathological examination of the tumor mass was as follows: "Specimen consists of two pieces of tissue, one of which has been sectioned before reaching the laboratory. This tissue is spherical in shape and measures 5 cm. in diameter. On section it is found to be composed of fibrous tissue containing nodules of what appear to be fibrous tissue. It is best described as numerous fibroids within a fibroid. One of the small masses of fibrous tissue is apparently undergoing degeneration and is markedly hemorrhagic. The entire tumor mass is well encapsulated. It does not appear to be malignant in the gross. The small piece of tissue measures 2.5 cm. in diameter. It is pinkish red in color and soft in consistency. It has no characteristic structure.

Sections microscopically through the tissue submitted show a marked increase in fibrous tissue with a deposit of large amounts of collagen. The tissue contains numerous blood vessels which have thickened walls and there is marked perivascular infiltration with round cells. One portion of the tissue apparently through the area of degeneration shows some rather large cells with large nuclei. No mitotic figures can be seen but the cells vary

in size and shape and I believe that this is a pre-malignant condition. The smaller piece of tissue is composed of fibrous tissue and muscle showing some round cell infiltration. It has no characteristic structure.

Diagnosis: Leiomyoma—pre-malignant."

(Signed) J. STEWART ROONEY, M.D.

Conclusion: Tumors of the broad ligament comparatively rarely act as an obstructive force to the engagement of the presenting part. Based on the feeling of the eccentrically placed mass, by rectal examination and the passage of meconium, a diagnosis of breech presentation was made. The abdomen was too obese for satisfactory palpation of parts and the position of the foetal heart was high enough to make it consistent with breech diagnosis. Subsequent findings proved this diagnosis incorrect.

It may be concluded, *first*, that additional surgery (exclusive of that of the intestinal tract) at the time of Caesarean section is not attended with unusual reaction (the temperature for the first 10 days post-operatively remained at an average of 99.1). *Second*, the passage of meconium is not of such great portent in relation to the immediate condition of the foetus in utero as is supposed, especially when pressure on the vertex is not continuous as is the condition during non-engagement. In this case meconium stained fluid (vertex presenting) was discharged for a period of two hours and fifteen minutes and the baby subsequently showed no evidence of cerebral pressure. *Third*, since the tumor was pre-malignant in character, this patient, a woman 31 years of age, was most fortunate in having had an obstructed labor which needed to be relieved by Caesarean section.

painstaking study of each case would answer the question, for there is no set standard of degree of paralysis by percentages. Undoubtedly this varies in different outbreaks. So, too, is it impossible to determine whether serum treated cases showed any greater improvement than those not treated.

In studying the value of serum treatment it is interesting to note the results among patients treated at different periods from the onset. Among thirty-three cases who were given serum on the first day only four cases subsequently showed muscular weakness or paralysis. Of sixteen cases treated on the second day three showed later paralyses. Of thirty-two cases first treated on the third day twenty-eight became paralyzed. These are very significant facts. There is only one valid criticism and that is the possibility that in this group of cases treated with serum not later than the second day there were included a disproportionate number of meningitic cases, many of which there is reason to believe, would never have shown any paralysis. Such non-paralytic meningeal cases have been observed in other outbreaks when serum was not used. That this should account for all of the surprising results of treatment during the first two days is doubtful.

There was considerable discussion during the 1931 outbreak and since whether convalescent serum is of any value or not. Whether the seemingly valuable results may be accounted for by the appearance of a large number of non-paralytic meningeal cases which would have done just as well without serum treatment, it is impossible to say. Published reports from other cities which should appear in the near future may throw some light upon this question. Meantime, it would seem to be logical to advise convalescent serum in the treatment of early cases of acute poliomyelitis before the paralysis has appeared.

ACUTE POLIOMYELITIS

Continued from page 101

oped muscular weakness after admission and serum treatment. The amount of paralysis was rather limited and much improvement was noted during convalescence in the hospital.

Whether the serum limited the paralysis among those showing muscular weakness on admission, it is impossible to say. It is doubtful whether a most

CASE REPORTS

RHODE ISLAND HOSPITAL CLINICAL-PATHOLOGIC CONFERENCE

Tuesday, March 8, 1932

Case reported by Dr. Alex M. Burgess.

The following mimeographed history was passed out:

A. G. Age 71, native widow, admitted Nov. 28, 1931.

C. C. Loss of appetite, frequent black stools, loss of weight, weakness.

P. I. Five weeks ago patient had a severe "head cold" with distressing cough and a great deal of sputum. With this she lost her appetite. No vomiting. For past two weeks she has had loose bowel movements, 5-6x per day, and the stools have been the "color of ink." Was formerly very constipated. Has lost about 50 lb. of weight in 6 months.

F. H. Not remarkable.

P. H. Typhoid fever at 25.

Systems: C. R. Bronchitis and catarrh for years; dyspnoea on exertion for 3 years. Edema of legs for one week.

G. U. Some difficulty in urinating lately.

Skeletal: "Arthritis" in hands and wrists for about 2 years.

Physical Examinations

(Only positive findings) Elderly white female, shows marked loss of weight, lying quietly in bed.

Eyes: Early bilateral cataract; pupils slightly irregular.

Teeth: Very few poor teeth left.

Lungs: Dullness at left base, where there are no breath sounds. Left diaphragm does not move on inspiration.

Heart: L.B.D. in ant. axillary line. Sounds are irregular due to extra systoles, poor in quality. Blood pressure 159/82.

Abdomen: Shows marked loss of weight. Tenderness in left flank, l.l.q. and r.l.q. Sense of resistance in l.l.q. Audible peristalsis moderately increased (by stethoscope). Liver not felt.

Rectal: Small tender hemorrhoid. Mass of impacted feces in rectum.

Extremities: Arthritic changes in hands. Pitting edema of lower extremities.

Laboratory Data

Urine: L.P.T. of Alb.; occasional W.B.C.; epith; mucous.

Blood: Urea 12, sugar 85.

12/14/31—R.B.C. 3,870,000; Hg. 49% (D).

1/4/32—R.B.C. 2,730,000; Hg. 37% (D); W.B.C. 15,900.

Smear shows 2° anemia, normal differential. Wasserman and Hinton negative. Stools persistently Benzidine 4 plus. "Blister test" by Dr. Pitts "not characteristic of Ca."

X-Ray: 11/28/31—Barium enema shows large rectum. "Filling is good to splenic flexure, past which no barium could be forced. The end of shadow is smooth and no reason is seen for incomplete filling."

Chest shows evidence of some displacement of heart to left. Size and shape appear normal. Lung fields are clear.

12/2/31—G. I. series negative.

11/30/31—E. K. G. showed premature auricular beats and left sided preponderance.

Progress

12/12/31—Patient had difficulty voiding. Residual urine equals ounces XK.

12/15/31—Because of persistent positive benzidine stools and urinary retention patient transferred to I Surg. for cystoscopy and proctoscopy.

12/18/31—Cystoscopy showed congested bladder, capacity of 400 c.c. Trigone pushed forward as by mass in rectum. Kidney function poor.

12/22/31—Proctoscoped "Tumor mass in rectum found to be impacted feces." Gyn refer negative.

1/4/32—Patient looks very poorly. Temp. continues afebrile. Service still peels pt. has malignancy in G. I. tract.

1/7/32—Progressively weaker. Incontinent. Patient has developed weakness of left arm and leg with flaccidity.

1/8/32—Patient died.

DR. BURGESS: "This widow came in because she had lost a lot of weight and also appetite. The onset was not particularly important. For the rest the history is practically negative as you will see by the P. H. As we looked her over we were impressed with the fact that she had lost weight. The abdomen showed very loose skin. She had this little cataract—dullness at one base and the left border of the heart was over at the left anterior axillary line. She had a little hemorrhoid. We thought she was probably losing blood and thought she had an anemia. Our blood test showed blood chemistry normal but the microscopic of the blood showed a well

marked secondary anemia. Our examination of the stool always showed a marked four plus test with Benzidine. We felt she had a bleeding point somewhere. X-ray examination was made on the 28th of November, and, as you see, except for a large rectum we did not find very much. The G. I. series was normal. They could not get the barium enema up completely but taken from above the G. I. series showed nothing abnormal. We felt that there was a bleeding point somewhere and we were sorry that X-ray did not show just where it was. We did not always see the black stool. We had, however, a Benzidine test when they did not show any color and it did show a four plus test. She evidently had some residual urine which we found was twenty ounces. We asked the surgical men to see her. She went right on and died, but the day before she developed a flaccid paralysis of the left arm and leg. Apparently a pretty complete hemiplegia. In thinking of her we still felt that there must be something in her G. I. tract. We noted the marked loss of weight and felt there must be a malignancy with bleeding into the G. I. tract which we could not locate definitely by physical examination or the X-ray. We felt that she had developed a thrombotic process in her brain which gave the left hemiplegia. We thought she had a weakened myocardium also. Our diagnosis was cerebral accident with malignancy somewhere in the G. I. tract."

Demonstration of X-Ray Films

DR. BATCHELDER: "At the time of the cystoscopic examination films were taken of the G. U. tract which show quite normal filling on both sides. The film of the chest, while it does show a heart somewhat to the left, it does not appear to the right and I would say it was not enlarged. The lung field is quite clear. The aortic knob is a little prominent partly on account of its being pushed over to the left. The barium enema filled only up to here. These films were taken Nov. 30, 1931."

Q.: "Did she have a G. I. series?"

A.: "Yes, but no films taken at that time. It was reported negative."

DR. GORMLEY: "I presume that the cerebral accident was not a very important factor in the cause of her death. She was in the hospital about six weeks and she must have been losing ground all the time while she was in the hospital. The cerebral accident was not suggestive of severe hemorrhage."

Q.: "Did she lose consciousness?"

A.: "Yes. She was quite unconscious but Dr. Baker calls to my mind one thing. Before she died she was roused enough to talk to her people."

DR. GORMLEY: "The outstanding thing all the way through is this persistent bleeding from some place in the G. I. tract—that probably is the cause of her secondary anemia, if it was not due to malignancy. Nothing in the examination has explained where that blood was coming from, but it seems it was from high up. It seems strange that with all the diarrhea she had that that impaction in the rectum had not come out before. There is not any kidney element apparently in this case. It is noted that she has slightly irregular pupils. She has a negative Wasserman and Hinton and the irregular pupils are probably not due to any lues. The negative G. I. series does not apparently locate this bleeding point in any way. I would suspect that you would find some pathology in the region of the splenic flexure, whether within or pressing from the outside, but that would not necessarily have caused all the black stools."

DR. WELLS: "I think that the fact that you could not get the barium above the splenic flexure cannot be ignored. We have one impression as to what happened when the barium was given by mouth, but I should feel there should be something in the large bowel. It is not very often that you get tumor growths in the small bowel. I should think, with the dullness in the abdomen, blood in the stools and secondary anemia, that there should be a growth in the large bowel, but I am not sure that there will be metastasis to the brain. It might well be that it was simply an arterio-sclerotic process in the brain but I think we should consider metastasis."

DR. CRAMER: "We seem to depend too much on the X-ray findings. Here it says the lungs were dull at the base and no breath sounds. In spite of the fact that the G. I. series and the barium enema were negative, I remember we suggested we ought to have another barium enema. It was going to be done but the patient was apparently too sick. It seems to me the patient seemed dull a week before she died and the day when she died it was suggested that the thing was not a cerebral accident but metastasis from somewhere in the G. I. tract and probably to the lungs."

DR. BATCHELDER: "There is just a bit of increased density at the left base. The diaphragm is not visible. Probably just the slightest bit of fluid. In general, the lung field is quite clear."

DR. BRAY: "Nothing has been said about the change in the stool habit. For two or three weeks she had diarrhea. Any patient who has change in her stool habit at her age should be considered a malignancy somewhere in the large bowel. It is very rare to get bleeding of frank blood from the bowel. We have all seen the barium meal go through a constriction which would not allow a pencil to go through. She had some irritability in the large bowel. I think most of the evidence is in favor of malignancy."

Demonstration of Postmortem Material

DR. CLARKE: "External examination did not tell us anything. An emaciated elderly woman. There was nothing of any importance in any of the large cavities—peritoneal, pleural or pericardial. We will start with the gut. There were some little hemorrhoidal tags in the rectum and aside from that it was entirely negative. No pathology in the large gut except that it contained tarry stool. In the small gut, beginning high up, I believe the first one was really in the last portion of the duodenum and then extending down through the jejunum, were these tumor masses—six of them—all much alike. You see how they stick out from the mucosa. While they have a broad sessile base they are somewhat pedunculated. When we cut across these tumors we felt quite definitely that they were carcinomatous and we then had to explain why they were multiple and why they had this sessile pedunculation. We got around this by suggesting that they started out as multiple polyps with malignant change later. That does happen. The gall bladder is distended with many small stones and, in addition, growing under its mucosa is this little tumor nodule. In this left lung there is a large tumor mass extending out from the hilus into the tissues of the lower lobe and there is a second smaller tumor nodule here in the upper lobe. The Brain: In the right hemisphere just in front of the fissure of Rolando is this tumor nodule. So we made a gross diagnosis of carcinoma of the small intestine which originated in multiple polyps with metastasis to gall bladder, lung and brain.

These is one peculiar thing about these tumors. They have a color varying from brown to black. When cut across there are in places white, carcinomatous looking areas. We explained the color by saying that she was bleeding and the color was blood pigment which had turned black from the

action of the intestinal content—just as we explain the tarry stool. We did not stop to reason that all the others in the brain, lung and gall bladder were the same color as those in the intestine. It was only yesterday the sections came through. (Slides shown.) You can see the great amount of pigment. Special stains prove it to be melanin.

"We have, therefore, a malignant melanoma of the small intestine. The difficulty of that is that it is not supposed to occur there. Melanoma of the gut is never found in the small intestine. Ewing has seen one as high as the caecum but never in the small intestine. We found no primary elsewhere. There is still a possibility that there was a primary elsewhere that we missed. However, in its absence we must make the diagnosis of primary malignant melanoma of the small intestine with metastasis to the lung, brain and gall bladder.

"(Note: I have since found one report of primary malignant melanoma of the small intestine by Dr. F. B. Lung of Boston. *New England Journal of Medicine* 201:1133, Dec. 5, 1929.)"

OBITUARY

DR. JAMES HUGH BARTLEY

Dr. James Hugh Bartley was born in Greenville, R. I., and died at his summer home at Barrington, R. I., August 31, 1931, of angina pectoris, completing seventy-five years of life and a half century in the ranks of the medical fraternity.

Dr. Bartley spent his youth in Houlton, Maine, where he lived with an uncle, the Rev. Luke Bartley. After a preliminary training in the local schools and at Houlton Academy, he received his pre-medical education at a college in Memramcook, N. B., and his medical instruction at the Detroit Medical College, from which he was graduated in 1881. After some clinical experience in Detroit, the doctor began his practice in the North End of Providence, where he was engaged in the active general practice of his profession until failing health forced him reluctantly to gradually relinquish his greater activities about ten years ago.

Up to the time of the failing of his strength, Dr. Bartley enjoyed a very large practice. He was a general practitioner of the type whose passing we are beginning to lament. Specialism was not so common in his day and he gave advice and care

where and how he could, and how satisfactorily the immense number of his devoted followers would testify. As an accoucheur he had great repute, and the number of confinements at which he presided annually would appall the obstetrician of today.

Dr. J. H., as he was called by most of his patients and friends, was endowed with an unusually attractive personality and a good clinical instinct, and if he acquired little of the world's goods he laid up a great treasure of the esteem, respect and affection of his patients which we well might envy him.

Dr. Bartley is survived by one sister, Miss Helen Bartley of this city, two daughters, Mrs. Carl Morgan of Cranston, Mrs. Milton Kane of Riverside, and one son, Dr. James H. Bartley of Providence.

JOHN P. COONEY, M.D.
D. FRANK GRAY, M.D.
JOHN W. KEEFE, M.D.

SOCIETIES

PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. Lucius C. Kingman, Monday evening, May 2, 1932, at 9:50 P. M. The records of the last meeting were read and approved. A letter from Mrs. Antonio C. Ventrone was read. Dr. Herman C. Pitts reported for the committee to investigate the parking situation on the East Side.

The first paper of the evening was read by Dr. Eske H. Windsberg on "Thoracoplasty in the Treatment of Chronic Pulmonary Tuberculosis." This consists in reducing the size of the chest cavity by removing ribs. Other methods frequently supplement this. It is one of the aspects of the rest treatment. He gave a summary of the history and development of the operation. It is applicable to unilateral cases that have not responded to proper treatment. Portions of the ribs are removed paravertebrally in two or more stages. He reported a series of eight cases done at the Miriam Hospital and showed X-ray films. The paper was discussed by Dr. Harry L. Barnes who reported twenty-two cases and showed two. Drs. Mowry, Kelly and DeWolf asked questions.

The second paper, on "Diaphragmatic Hernia, Symptomatology and Diagnosis," was read by Dr.

Samuel Morein. Few of these cases were recognized till X-ray was freely used in studying the alimentary canal. Any type of upper abdominal or thoracic symptom complex may occur. In his series of cases the treatment was medical in a large proportion with amelioration of symptoms. A series of slides were shown. Dr. Newsam presented a case. Discussion by Drs. DeWolf, George Mathews, Bray, Gray, Benjamin, Kelley, Kingman and Morein.

The meeting adjourned at 10:50 P. M. Attendance, 93. Collation was served.

Respectfully submitted,

PETER PINEO CHASE,
Secretary.

HOSPITALS

MEMORIAL HOSPITAL

The Memorial Hospital staff meeting was held March 10, 1932. The meeting was called to order by Dr. James L. Wheaton at 9:15 P. M. The minutes of the preceding meeting were read and approved as read.

The paper of the evening was presented by Dr. Meyer Saklad on "Oxygen and Carbon Dioxide Therapy." The subject was very clearly and minutely treated and gave rise to a considerable amount of discussion.

Dr. A. H. Miller explained his own modification of artificial respiration machine as originally suggested by Henderson and Haggard.

Dr. John F. Kenney spoke of some additional uses of oxygen and carbon dioxide therapy.

Dr. E. Benjamin discussed atelectasis from the X-ray standpoint.

Dr. Jacob Greenstein asked about the dangers of over-oxygenation of the patient when cyanosis was not present.

Dr. Saklad in closing the discussion spoke of the subcutaneous and intravenous administration of oxygen. He stated that oxygen in pneumonia was given in accordance with the blood findings. He stated that there was no danger of over-oxygenation with the use of the nasal catheter.

The meeting adjourned at 10:18 P. M.

STANLEY SPRAGUE, M.D.,
Secretary.

A Memorial Hospital staff meeting was held April 7, 1932. The meeting was called to order by Dr. Charles H. Holt at 9:15 P. M. The minutes of the previous meeting were read and approved as read.

A communication was received from Dr. M. Chapian, expressing appreciation of courtesies of the staff during his recent illness. The letter was read and ordered filed.

Dr. Jacob Greenstein presented a medical case of tuberculosis in a diabetic operated on for "cold abscess right chest."

Dr. J. F. Boyd remarked on X-ray findings.

Dr. M. Saklad remarked on anesthetic administration (avertin).

The second case presented was a patient with persistent temperature without physical findings. Final diagnosis lymphoid leucemia made at autopsy.

Dr. B. Feinberg opened the discussion on the second case.

Dr. A. Vandale reported a case of atelectasis of lung caused by tuberculosis and gave autopsy findings.

Dr. J. F. Boyd and Dr. W. P. Davis discussed this case.

The members present at the meeting were: Drs. Clarke, Cohen, Davis, Feinberg, Fox, Gerber, Greenstein, Hanley, Hacking, Holt, Saklad, Sprague, Vandale, Wheaton and Krolicki.

The meeting adjourned at 10:26 P. M.

STANLEY SPRAGUE, M.D.,
Secretary.

ST. JOSEPH'S HOSPITAL

The April meeting of St. Joseph's Hospital Staff Association was held April 14, 1932, in the auditorium. Called to order at 9 P. M. by the President, Dr. William A. Horan, routine business was disposed of and Dr. William H. Jordan of the Pediatric Service presented a case of Banti's Disease, outlining factors in diagnosis, treatment, and, later, the patient was operated, splenectomy being done, recovery was uneventful, and the boy appears to be doing well. The little patient was presented to the assemblage. This case was discussed by Drs. Hindle, Hamilton, Coughlin, Bolster, Freedman, E. A. McLaughlin and W. S. Streker. Dr. Jeffrey J.

Walsh of the Otorhinolaryngological Department read a paper entitled "Sinus Disturbances in Children." This was discussed by Dr. Robert C. O'Neil. Sound movies, entitled "Experimental Gastroenterostomy" and "Suspension of the Uterus for Retrodisplacement," were shown, courtesy Petro-lagar Company. Adjournment was taken at 10:45 P. M. Attendance, 72. Collation was again served by caterer with compliments of the Mother Superior, Superintendent of the Hospital.

JOSEPH L. BELLOTTI, M.D.,
Secretary.

PROVIDENCE ASSOCIATION OF RECORD LIBRARIANS

The regular meeting of the Providence Association of Record Librarians was held Tuesday, April 5, 1932, at the Charles V. Chapin Hospital. The meeting was called to order at 8 P. M. by the President. The records of the last meeting were read and approved.

Miss Mary Norton, record librarian of the Charles V. Chapin Hospital, read a paper on "Information Valuable to a Record Office." A general discussion followed.

The following hospitals were represented: Charles V. Chapin Hospital, Homeopathic Hospital, Lying-In Hospital, Miriam Hospital, and the Rhode Island Hospital.

The next meeting will be held at the Homeopathic Hospital the first Tuesday in May.

The meeting adjourned at 9:30 P. M.

Respectfully submitted,

SARAH LITWIN,
Secretary.

The third regular monthly meeting of the Providence Association of Record Librarians was held at the Homeopathic Hospital on May 3, 1932, at 7:45 P. M.

Miss Murphy called the meeting to order and asked for the Secretary's report. The minutes of the previous meeting were read by the secretary. Upon motion made and seconded, it was voted that the secretary's report be accepted.

Miss Schweitzer then gave a little talk on "How to Obtain Completed Records." This talk proved to

be beneficial to all. A general discussion of how much information is given to lawyers and insurance people followed.

The next meeting being the last of the season, Miss Murphy invited the Association to the Rhode Island Hospital.

The meeting adjourned at 9:30 P. M.

Respectfully submitted,

SARAH LITWIN,
Secretary.

ANNOUNCEMENT

An invitation has been extended to American Physicians and Surgeons by the Medical Associations of Leningrad, Moscow, and other cities of Soviet Russia to visit their hospitals, clinics, research laboratories and similar institutions.

This is the first occasion ever offered the American physicians to inspect officially these most interesting phases of Russian medical life.

The group of American physicians which is now forming will sail this summer.

Those interested can get full information from Compass Tours, 55 West 42nd Street, New York City.

CONRAD K. GALE, M.D.

BOOK REVIEWS

THE DOCTOR AND HIS INVESTMENTS. Merryle S. Rukeyser, B.Litt., M.A. P. Blakiston's Son & Co., Inc.

This splendid presentation of the many problems that confront the doctor in the investment market is meaty from cover to cover and should not be lightly read. There is such a wealth of information in this book as to make it intensely interesting, and it will unquestionably give the reader a better financial background. The author conveys the impression (and rightly so) that the time is not far distant when the investor will go to a financial house—who have nothing to sell but advice—and pay for it. A few random quotations may be added.

"The scientific investor recognizes that there are hazards in business as in all human pursuits. The non-professional investor, such as the doctor, to keep himself posted on financial matters, must de-

pend principally on the daily newspaper. He needs competent interpretation, rather than an analyst's array of unsynthesized raw facts."

"Since both business and finance are in a perpetual flux, the investor must continuously re-study his problem in the light of changing fundamental conditions. The building of bridges and tunnels render hitherto gilt edge ferry bonds obsolete. The law of change affects all human activity and the investor desiring safety of principal and the best earning power on his capital, must keep himself informed of the major trends in this ever-shifting world of affairs."

This book will be a revelation to any doctor who will take the time to read it carefully. It is an intimate study of conditions and problems presented to the physician, from which a financial policy and technique have been evolved.

COPY OF A REVIEW OF "THE WAY OF HEALTH INSURANCE"

By A. M. SIMONS, member of the Research Staff of the Committee on the Study of Dental Practice of the American Dental Association; and Nathan Sinai, D.P.H., Associate Professor of Public Health, University of Michigan, and adviser to the Committee on the Study of Dental Practice. (216 pages, cloth bound, \$2.00. Published April 19 by the University of Chicago Press.)

After two years' investigation of eight leading European systems of compulsory health insurance, Mr. Simons and Dr. Sinai present their report in the book, "The Way of Health Insurance," recently published by the University of Chicago press. It will serve as a warning to the physicians and dentists of this country that if they do not take a hand in formulating the policies of any insurance system that may be installed in the United States, the professions will find themselves in conflict with its practices when it is too late. The authors cite the case in France, when after the insurance law had passed in the Chamber of Deputies, the physicians and dentists united, tardily, in an attack on it, held up its enforcement for two years, and virtually rewrote it.

The conflict between the professions and the laws, the authors point out, is due to the fact that health insurance always has been, and probably always will be, more "poverty" insurance, or "poor relief," than medical relief. It has its origin in a

social need. Its cash benefits are a fundamental part of the system, and take the place of the pay envelope when sickness interrupts earning power. Social workers are largely responsible for the agitation for health insurance and for the formulation of its regulations. *Politics also plays an important part.* The authors state that the German system, which was the first, was originated by Bismarck in 1883 as a political move to get the support of the Social Democrats. Politicians under any government consider health insurance a palliative for social revolt. The pressure for social insurance becomes acute in times of depression, and history shows that attempts at legislative relief always follow economic depressions. This was true in Europe. It is true in America today. Economists say that 20 to 30 per cent of the sick do not at present receive adequate medical care. *Health insurance bills are now before the legislatures of several states.*

Another group that takes an active hand in formulating health insurance laws is the commercial insurance companies. This is natural, as they have the organization for the conduct of the business, and experience. In suggesting the error of allowing health insurance laws and regulations to be formulated by social workers, politicians, and commercial insurance companies, the *authors* make no reflecting upon the sincerity or integrity of these agencies, but merely point out that since they know little of medicine and professional practice, only a minor consideration is given to these phases which affect the practitioner and the patient so vitally.

Their most detailed investigation was of the systems in Great Britain, Germany, and France, but a great deal of specific information is given about the systems of Denmark, Sweden, Norway, Austria, Belgium, Hungary, Switzerland, and other countries.

Germany has 44,000,000 insured, according to their statistics. Eighty-five per cent of all physicians give part or full time to insurance practice; a small group has a wealthy, non-insured practice; the rest starve, or practically so, especially the recent graduate who usually has to wait five to seven years to get into insurance practice. The insured get both medical and dental service free, and cash benefits.

Great Britain has about 16,000,000 insured (the families of the insured are not covered as they are in Germany). Any registered physician or dentist

can require the insurance committee to put his name on the "panel" list, from which the insured makes his choice. This panel list is posted in a public place. The British system differs from the German in the further respect that specialist services are not included, and medical service is, as far as practicable, divorced from the social management that determines whether cash benefits shall be paid. The authors are decidedly of the opinion that separation of the medical service from the administration of cash benefits results in a more efficient and honest operation of the system.

In France—the system which the physicians and dentists practically rewrote after a two years' fight—the relation between practitioner and patient is virtually the same as in private practice. The patient has free choice of practitioner, the practitioner fixes his own fee, and the insured presents the practitioner's bill to the insurance organization and is reimbursed with a percentage of it—usually 80 per cent.

Broadly viewing insurance in action in numerous countries, the authors make three important points: First, notwithstanding the many faults and deficiencies of the various systems, no country that has ever tried compulsory health insurance would be willing to go back to pre-insurance days; second, insurance practice is generally conceded to have increased the average professional income; third, it has not apparently improved public health, nor diminished death rates or time lost in industry on account of sickness.

"One thing at least should be plain," they say, "and that is that he who says, without qualification, 'I am against health insurance,' or 'I am for health insurance,' is speaking out of the great depths of ignorance or great heights of prejudice. There is not one health insurance, but many, and each has a multitude of features, some good and some bad. It is more than within the bounds of probability that this country will follow the example of so many others and try some system of health insurance. Whether that system will bring all the evils along with what is good in previous systems depends upon how wisely those who write its terms pick and choose among the already ample experience of other nations."

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MISCELLANEOUS

BIOCHEMICAL STUDY OF SINUS DISEASE

Sidney Israel and H. O. Nicholas, Houston, Texas (*Journal A. M. A.*), present the results of a study to determine any changes that might be present in the blood, pus, tissue or bone wall of diseased sinuses, more especially in chronic sinus disease. Only patients with definite and unmistakable evidence of a sinus disease were selected. The examination of the patients consisted of the history, rhinoscopic examination, roentgenograms of sinuses, and, when indicated, resort to direct irrigation of the sinus, chemical analysis of the blood, Kahn and Wassermann tests, and urinalyses. The patients were from 4 to 64 years of age. The Caldwell-Luc operation was utilized in the radical cases when the maxillary sinus was opened. The external operation was employed with reference to the frontal and ethmoid sinuses. A sufficient quantity of the bony wall of the sinuses was removed, likewise the tissue contents of the sinuses.

Pus, when found, was aspirated into a sterile syringe. The blood was withdrawn from a vein in the arm in the usual manner. Of twenty analyses of bone tissue made only five showed a distinctly high calcium to phosphorus ratio. According to the interpretation given by Kramer and Shear, this can only mean that fresh calcification is taking place in the sinus bones of those individuals. Chemical examination of diseased sinus membranes did not reveal evidence of appreciable tissue calcification. Analyses on the dried polyps or pus material associated with the sinus infection showed practically no calcium, phosphate or carbonate. In a series of thirty-three cases with a positive diagnosis of sinus disease in which chemical analysis of the blood was done, eighteen showed an increase of blood calcium above the established high normal. In only one patient with a positive sinus disease was the serum calcium below the average minimum normal. The authors conclude by stating that, as yet, they have not been able to determine any characteristic or consistent chemical observations that are significant of bone, tissue or blood changes in sinus disease and that could be looked on as having any bearing on its diagnosis, prognosis or treatment.

DIETARY TREATMENT OF PSORIASIS

Jay F. Schamberg, Philadelphia (*Journal A. M. A.*) calls attention to the statement of Schamberg, Kolmer, Ringer and Raiziss, made after a long and painstaking research nearly two decades ago, to the effect of the influence of diet on psoriasis. The very laborious, extensive and expensive studies in question resulted in the conclusion that there was a positive nitrogen metabolism in psoriasis. Accompanying this presentation of the subject was a series of "before" and "after" photographs, however, which constitute irrefutable documentary evidence of the truth of the statement that a "low protein diet" in the sense in which this term was employed has an enormous influence on the course of the psoriatic eruption. Within the period of eighteen years that has elapsed since the publication of the "Research Studies in Psoriasis," further evidence has come to the author of the verity of the foregoing statement. In only one case of psoriasis has he not been able to effect a virtual disappearance of the psoriasis eruption by diet. He presents two tables in which are given diets of different type that he has employed in the treatment of patients with psoriasis. They contain from 4 to 5 Gm. of nitrogen and sufficient calories to cover the needs of a man doing a moderate amount of work. For hard-working persons, additional butter and cream can be added. One may allow plenty of sugar, and candy may be permitted between meals. These two diets give an idea of the way dietaries of this nature can be arranged, without losing sight of the necessity of a certain amount of variety in the menu. Oysters and ice cream may be added to the diet, as they contain very little nitrogen. To meet individual tastes, substitutions can be made. Berries, asparagus, broccoli, pears and like foods may be inserted in the dietary instead of cabbage and turnips and some of the fruits mentioned.

CAESAREAN UTERINE SUTURES PASSED FROM THE VAGINA

Harry S. Fist, Los Angeles (*Journal A. M. A.*), reports that on Oct. 21, 1931, at the Cedars of Lebanon Hospital, after a test of labor, a low cervical caesarean section was done, because of dystocia due to disproportion, on a primigravida, aged 28, in good general health. Bleeding was profuse, the placenta being located on the anterior aspect of the lower uterine segment. The uterine incision

was closed with a first layer of interrupted number 2 chromic catgut sutures, a second layer of continuous number 2 chromic catgut locked suture to stop hemorrhage from the bleeding venous sinuses, and several interrupted sutures. On the eleventh day which was the second day with a temperature of 98.6 F., the nurse reported that the patient had passed a large piece of pus from the vagina. Inspection proved this to be a soft mass of yellowish tissues, encircled by the interrupted and continuous uterine sutures; in short, the uterine scar. So many convalescents from caesarean section exhibit unexplained elevations of temperature that ischemia and tearing out of the sutures is probably common but remains unrecognized. It may even occur when the temperature is normal. At any rate, the sutures are safer if the following precautions are observed: Sutures should include wide bites of tissue. They should be interrupted and loosely tied. Fluid extract of ergot or solution of pituitary should be used in small doses only, with the greatest care. A drain should be used if there is any suspicion of infection. The occurrence reported is rather rare, yet it is possible that in many caesarean cases the line of sutures sloughs out entirely or in part without coming to observation.

in operative technic, advocating operative intervention in skull fractures, especially decompressions. He believes that if the average man will delay all roentgen examinations, undue physical examinations and operative procedures (with a rare exception) until the initial shock is over and then will classify his cases according to their signs and symptoms, he will develop for himself a common sense, rational line of treatment free from many of the controversial pitfalls commonly found in the management of skull fractures. Skull fractures should be treated at or near where they occur. Specialists, if desired, should be taken to the patient with the skull fracture rather than the patient to the specialist. Since, in the majority of communities, specialists in this condition do not exist and since the automobile has become a potential carrier of skull fractures to every hamlet, village and city in the land, it behooves all with experience in this matter to simplify and clarify the management of skull fractures to the end that the majority of physicians can properly cope with this grave emergency when and wherever confronted with it.

MANAGEMENT OF SKULL FRACTURES AND INTRACRANIAL INJURIES

Harry E. Mock, Chicago (*Journal A. M. A.*, Nov. 14, 1931), calls attention to the fact that the annually increasing morbidity and mortality rate due to trauma, with skull fracture causing a high percentage of the deaths, makes this one of the great economic and medical problems of the present time. It is impossible to standardize treatment, as each individual case presents its own peculiar requirements. But it is possible to give a rational routine treatment which can be applied to 50 percent of all skull fracture cases and then to classify the remaining cases into the following three groups: (1) Those in which rest treatment alone is sufficient (4 percent); (2) those who must have, in addition to routine care, the special treatment of lumbar drainage (33 percent), and (3) those cases having definite, recognized indications for cerebrocranial operations (13 percent). The author attempts to clear up certain controversies by detailing those practices recognized by the majority of authors on this subject and proved of the greatest value in his hands, in the management of skull fractures and cerebrocranial injuries. His article was written for those men away from medical centers who are just as frequently confronted with these cases and who are sometimes led astray in their treatment by certain teachers decrying lumbar drainage and by other teachers extremely adept

INCIDENCE OF SYPHILIS IN PRIVATE PRACTICE

Edgar F. Kiser and C. B. Bohner, Indianapolis (*Journal A. M. A.*), analyze their observations in 2,872 consecutive examinations made from Sept. 1, 1925, to Jan. 1, 1932, on private patients who came to their offices for physical examinations. They were of the well-to-do and middle class in about equal proportions. All were white. There were 1,084 men and 1,788 women. The individual occupations are not recorded, but a cross-section of the group would represent in occupation, wealth and social position an average practice recruited from the so-called upper social strata. None came primarily because of known syphilis; in fact, none had primary lesions at the time of our examination and only two had secondary manifestations. Blood Wassermann and Kahn tests were made as a routine on each patient in the series. The work was done in a commercial laboratory, all tests were made by a single technician, a man regarded by the physicians of the community as being entirely dependable. In every instance the complement fixation was done by the Kolmer method, as well as with cholesterolized and alcoholic antigens. No reaction was reported as four plus unless the blood reacted so with all three antigens and showed a four plus Kahn reaction as well. Of the 2,872 patients 105, or 3.65 per cent, responded with such a straight four plus reaction. Sixty-six of the 105 patients were males—an incidence of 6.08 per cent of the 1,084 men in the series; 39 were females—an incidence of 2.18 per cent of the 1,788 women examined.